CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. R9-2003-0050
NPDES NO. CA0109029

WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER EXTRACTION WASTE DISCHARGES TO SAN DIEGO BAY FROM THE SAN DIEGO CONVENTION CENTER, SAN DIEGO COUNTY

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. The City of San Diego discharges groundwater extraction waste from the Convention Center dewatering system to San Diego Bay through an outfall.

2. The discharge of extracted groundwater is regulated under Order No. 2000-90, *General Waste Discharge Requirements for Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay and Storm Drains or Other Conveyance Systems Tributary Thereto,* adopted by this Regional Board in June 2000.

3. Groundwater extraction waste discharges pose the threat of discharging pollutants which may be present in groundwaters surrounding San Diego Bay as a result of many past activities, including leaking underground storage tanks and fuel lines, surface spills of wastes, and past use of liquid waste impoundments. Any discharge of untreated groundwater to San Diego Bay may cause or contribute to excursions above narrative water quality objectives contained in the Basin Plan as a result of the potential discharge of petroleum related compounds, solvents, and metals.

4. Since 1997, there have been numerous violations of the effluent limitations for chronic toxicity, arsenic, copper, nickel, and hexavalent chromium. Monitoring data indicate exceedances of effluent limitations for copper and chronic toxicity in the discharge. Since April 2001, the discharge from the Convention Center has episodically exceeded the effluent limitations established for chronic toxicity.

5. The State Water Resources Control Board (SWRCB), in the *Water Quality Control Policy for Enclosed Bays and Estuaries of California* (Bays and Estuaries Policy), promulgated principles for management of water quality, quality requirements for waste discharges, discharge prohibitions, and general provisions to prevent water quality degradation and to protect the beneficial uses of waters of enclosed bays and estuaries that are applicable to San Diego Bay.

6. The SWRCB *Policy for Implementation of Toxics Standard for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Implementation Policy) provides guidance for the development of effluent limits for priority toxic pollutants that will be consistent with water quality criteria for such pollutants promulgated by the U.S. Environmental Protection Agency (USEPA) in 40 CFR 131.38 (the California Toxics Rule).

7. The Water Quality Control Plan, San Diego Basin (9) (Basin Plan) designates beneficial uses and establishes narrative and numerical water quality objectives, and prohibitions, which are applicable to the discharges regulated under this Order.

8. The SWRCB adopted the Consolidated Toxic Hot Spot Cleanup Plan (Consolidated Plan) required under Bay Protection and Toxic Cleanup Program (California Water Code (CWC) Section 13395). Discharges from groundwater extraction activities may contribute to the pollution present at the toxic hot spots listed in the Consolidated Plan.

9. Pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (collectively "antidegradation policies"), the Regional Board shall ensure that any increase in pollutant loading to a receiving water meets the requirements stated in the foregoing policies.

10. Effluent limitations, and inland surface waters criteria, and enclosed bays and estuaries criteria established under Sections 301, 302, 303(d), 304, 306, and 402 of the Clean Water Act (CWA), as amended (33 U.S.C. 1251 et seq.), are applicable to the discharge.

11. For the purposes of this Order, "waste" includes the discharger's total discharge, of whatever origin, i.e. gross, not net, discharge.

12. The SWRCB adopted a revised *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan) on December 2, 2001. The Ocean Plan identifies beneficial uses of state ocean waters to be protected. In order to protect the above beneficial uses, the Ocean Plan establishes water quality objectives (for bacteriological, physical, chemical, biological characteristics, and for radioactivity), general requirements for management of waste discharged to the ocean, quality requirements for waste discharges (effluent quality requirements), discharge prohibitions, and general provisions.

13. Beneficial uses of San Diego Bay are similar to those of the ocean waters of the State. In order to protect the beneficial uses of San Diego Bay, discharge specifications and receiving water quality limitations, derived from Tables A and B of the Ocean Plan, by applying the calculations and procedures found in the Ocean Plan, have been included in this Order.

14. The Regional Board, in establishing the requirements contained herein, has taken into consideration the requirements of State and Federal antidegradation policies.

15. The Regional Board, in establishing the requirements contained herein, considered factors including, but not limited to, the following:

    a. Beneficial uses to be protected and the water quality objectives reasonably required for that purpose;

    b. Other waste discharges;

c. The need to prevent nuisance;

d. Past, present, and probable future beneficial uses of the waters under consideration;

e. Environmental characteristics of the waters under consideration;

f. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area;

g. Economic considerations;

h. The need for developing housing within the region;

i. The need to develop and use recycled water.

16. This Order shall serve as an NPDES permit for groundwater extraction waste discharges to San Diego Bay from the San Diego Convention Center pursuant to Section 402 of the Clean Water Act, and amendments thereto.

17. The issuance of this NPDES permit is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (Public Resources Code, Division 13, Chapter 3, Section 21000 et seq.) in accordance with the California Water Code, Section 13389.

18. The Regional Board has notified all known interested parties of its intent to issue this NPDES permit for groundwater extraction waste discharges to San Diego Bay from the San Diego Convention Center, and has provided them with an opportunity to submit their written views and recommendations.

19. The Regional Board has, in a public meeting, heard and considered all comments pertaining to groundwater extraction waste discharges to San Diego Bay from the San Diego Convention Center.

IT IS HEREBY ORDERED, that the City of San Diego (herein after discharger), in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act and the regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS:

1. The discharge of groundwater extraction waste in excess of 1.0 million gallons per day is prohibited, unless the City of San Diego obtains revised discharge requirements authorizing an increased flowrate.

2. The addition of pollutants to extracted groundwater to be discharged to San Diego Bay is prohibited. The only exception to this prohibition is that chemicals may be added to extracted

groundwater to control biofouling in treatment systems, provided that extracted groundwater discharged to San Diego Bay meets the effluent limitations for such chemicals established by this Order.

3. Compliance with Discharge Prohibitions contained in the Basin Plan (Attachment A) is required as a condition of this Order.

4. Compliance with Discharge Prohibitions as stated in the 1974 Bays and Estuaries Policy (Attachment B), is required as a condition of this Order.

5. The discharge of waste to areas designated by the SWRCB as being of special biological significance (ASBS) is prohibited. The discharge shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas. Currently, no area in the vicinity of this discharge is designated as ASBS.

6. Discharges of wastes in a manner or to a location which have not been specifically authorized by this Order are prohibited.

7. The discharge of any radiological, chemical, or biological warfare agent, or high level radiological waste to San Diego Bay is prohibited.

8. The dumping or deposition, from shore, of oil, garbage, trash, or other solid municipal, industrial, or agricultural waste directly into waters subject to tidal action or adjacent to waters subject to tidal action in any manner which may permit it to be washed into waters subject to tidal action is prohibited.

9. The dumping or deposition of chemical agents or explosives into waters subject to tidal action is prohibited.

B. DISCHARGE SPECIFICATIONS[1]/EFFLUENT LIMITATIONS

1. The discharge of groundwater extraction waste to San Diego Bay, containing pollutants in excess of the following effluent limitations is prohibited:

Constituent	Unit	6-Month Median	AMEL	Daily Maximum	Instantaneous Maximum	Basis[2]
Settleable Solids	ml/L	---	1.0	---	3.0	BPJ[5]
Total Suspended Solids	mg/L	---	30.0	---	50.0	"
Hydrogen Sulfide	µg/L	---	2.0	4.0	10.0	"
pH	pH Units	Within the limits of 6.0 to 9.0 at all times				"
Benzene	µg/L	---	---	---	5.0	BPJ/BAT[6]
Ethylbenzene	µg/L	---	---	---	5.0	"
Toluene	µg/L	---	---	---	5.0	"
Xylene	µg/L	---	---	---	5.0	"

Constituent	Unit	6-Month Median	AMEL	Daily Maximum	Instantaneous Maximum	Basis[2]
Total Petroleum Hydrocarbons	mg/L	---	---	---	0.5	"
Arsenic	µg/L	36.0	---	---	69.0	CTR[3*]
Cadmium	µg/L	9.3	---	---	42.0	"
Chromium (hexavalent)[9]	µg/L	50.0	---	---	1100.0	"
Copper	µg/L	---	2.45	4.8	---	Attachment D (RPA)[3*]
Lead	µg/L	8.1	---	---	210.0	CTR[3*]
Mercury	µg/L	0.94	---	---	1.8	"
Nickel	µg/L	---	6.7	13.5	---	Attachment D (RPA)[3*]
Silver	µg/L	---	---	---	1.9	CTR[3*]
Zinc	µg/L	81.0	---	---	90.0	"
Cyanide	µg/L	1.0	---	---	1.0	"
Phenolic Compounds (non-chlorinated)	µg/L	30.0	---	120.0	300.0	OP[4]
Chlorinated Phenolics	µg/L	1.0	---	4.0	10.0	"
Polychlorinated Biphenyls	µg/L	0.03	---	---	---	CTR[3*]
1,1,2,2-tetrachloroethane (PCA)	µg/L	---	11.0	---	---	"
1,1,2-trichloroethane (TCA)	µg/L	---	42.0	---	---	"
1,2-dichloroethane	µg/L	---	99.0	---	---	"
Tetrachloroethylene (PCE)	µg/L	---	8.85	---	---	"
Trichloroethylene (TCE)	µg/L	---	81.0	---	---	"
Vinyl chloride	µg/L	---	525.0	---	---	"
Carbon tetrachloride	µg/L	---	4.4	---	---	"
Base/Neutral Organic Compounds[10]	µg/L	---	---	---	10.0	BPJ/BAT[6]
Chronic Toxicity	TUc	---	---	1.0	---	"
Tributyltin (TBT)	µg/L	---	0.005	---	---	CTR[3*]
Total Coliform	MPN/100ml	---	---	---	1000.0	"
Fecal Coliform	"	---	---	---	200.0	"
Dissolved Oxygen (D.O.)	mg/L	---	---	---	>5.0	"
Turbidity	NTU	The transparency of bay waters, insofar as it may be influenced by any controllable factor, either directly or through induced conditions, shall not be less than 8 feet in more than 20 percent of the readings in any zone, as measured by a standard Secchi disk. Wherever the water is less than 10 feet deep, the Secchi disk reading shall not be less than 80 percent of depth in more than 20 percent of the readings in any zone.				BP[8]
2,3,7,8-TCDD (Dioxin)	µg/L	---	---	---	0.000000014	CTR[3*]

Note: ml/L = milliliters per liter; mg/L = milligrams per liter; µg/L = micrograms per liter; TUc = chronic toxicity units

* Criteria established pursuant to 40 CFR 131.38 is for the dissolved portion of the constituent in the sample.

2. Groundwater discharged to San Diego Bay must be essentially free of:

   a. Material that is floatable or will become floatable upon discharge.

b. Settleable material or substances that form sediments which degrade[11] benthic communities or other marine life.

c. Substances that will accumulate to toxic levels in marine sediments or biota.

d. Substances that significantly[12] decrease the natural light to benthic communities and other marine life.

e. Materials that result in aesthetically undesirable discoloration of San Diego Bay surface waters.

3. Groundwater discharged to San Diego Bay shall not cause natural water quality conditions to be altered in areas designated as being of special biological significance or areas that existing marine laboratories use as a source of seawater.

4. Groundwater discharged to San Diego Bay shall be discharged in such a manner as to provide maximum protection to marine environments.

C. RECEIVING WATER LIMITATIONS[13]

The discharge of groundwater extraction waste from the San Diego Convention Center shall not, separately or jointly with any other discharge, cause violations of the following water quality objectives in San Diego Bay.

1. Bacterial Characteristics

a) Water-Contact Standards

Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water-contact sports, as determined by the Regional Board, the following bacterial objectives shall be maintained throughout the water column:

(1) Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml). A verification sample will be required within 48 hours.

(2) The fecal coliform density, based on a minimum of not less than five samples for any 30-day period, shall not exceed a geometric mean of 200 per 100 ml nor shall

more than 10 percent of the total samples during any 60-day period exceed 400 per 100 ml.

b) Shellfish[14] Harvesting Standards

At all areas where shellfish may be harvested for human consumption, as determined by the Regional Board, the following bacterial objectives shall be maintained throughout the water column:

The median total coliform density shall not exceed 70 per 100 ml, and not more than 10 percent of the samples shall exceed 230 per 100 ml.

2. Physical Characteristics

a. Floating particulates and grease and oil shall not be visible.

b. The discharge of waste shall not cause aesthetically undesirable discoloration of the surface of San Diego Bay.

c. Natural light shall not be significantly[12] reduced.

d. The rate of deposition of solids and the characteristics of inert solids in San Diego Bay sediments shall not be changed such that benthic communities are degraded[11].

3. Chemical Characteristics

a. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as a result of the discharge of oxygen demanding waste materials.

b. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

c. The dissolved sulfide concentration of waters in and near sediments shall not be significantly[12] increased above that present under natural conditions.

d. The concentration of substances set forth in Discharge Specification B.1 in marine sediments shall not be increased to levels which would degrade[11] indigenous biota.

e. The concentration of organic materials in San Diego Bay sediments shall not be increased to levels which would degrade[11] marine life.

f. Nutrient materials shall not cause objectionable aquatic growth or degrade[11] indigenous biota.

4. Biological Characteristics

a. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded[11].

b. The natural taste, odor, and color of fish, shellfish[14], or other aquatic resources used for human consumption shall not be altered.

c. The concentration of organic materials in fish, shellfish or other aquatic resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

5. Radioactivity - Discharge of radioactive waste shall not degrade[11] marine life.

6. Toxic Materials Limitations

Constituent	Unit	6-Month Median	Daily Maximum	Instantaneous Maximum
Total Residual Chlorine (TRC)	µg/L	2.0	11.0	126.0
Benzene	µg/L	---	---	5.0
Ethylbenzene	µg/L	---	---	5.0
Toluene	µg/L	---	---	5.0
Xylene	µg/L	---	---	5.0
Arsenic	µg/L	36.0	---	69.0
Cadmium	µg/L	9.3	---	42.0
Chromium (hexavalent)[9]	µg/L	50.0	---	1100.0
Copper	µg/L	3.1	---	4.8
Lead	µg/L	8.1	---	210.0
Mercury	µg/L	0.94	---	1.8
Nickel	µg/L	8.2	---	74.0
Silver	µg/L	---	---	1.9
Zinc	µg/L	81.0	---	90.0
Cyanide	µg/L	1.0	---	1.0
Phenolic Compound (non-chlorinated)	µg/L	30.0	120.0	300.0
Chlorinated Phenolics	µg/L	1.0	4.0	10.0
1,1,2,2 tetrachloroethane (PCA)	µg/L	---	11.0	---
1,1,1-trichloroethane (TCA)	mg/L	---	11.0	---
1,1,2-trichloroethane (TCA)	µg/L	---	42.0	---
1,2-dichloroethane	µg/L	---	130.0	---
Tetrachloroethylene(PCE)	µg/L	---	6.9	---
Trichloroethylene (TCE)	µg/L	---	92.0	---
Vinyl Chloride	µg/L	---	34.0	---

Constituent	Unit	6-Month Median	Daily Maximum	Instantaneous Maximum
Carbon Tetrachloride	µg/L	---	3.8	---
Base/Neutral Organic Compounds[10]	µg/L	---	---	10.0
Chronic Toxicity Concentration	TUc	---	1.0	---

D. PROVISIONS

1. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.

2. The discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the non-complying discharge.

3. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

   a. Violation of any terms or conditions of this Order;

   b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts;

   c. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or

   d. A finding that monitoring "indicator" pollutants listed in this Order does not ensure compliance with water quality criteria or objectives for the pollutants expected to be represented by the "indicator" pollutants.

   The filing of a request by the discharger for modification, revocation and reissuance, termination, a notification of planned change in, or anticipated noncompliance with this Order, does not stay any condition of this Order.

4. In addition to any other grounds specified herein, this Order shall be modified or revoked at any time if, on the basis of any data, the Regional Board determines that continued discharges may cause unreasonable degradation of the aquatic environment.

5. The permitted discharge, either separately or jointly with any other discharge, shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act or amendments

thereto, the Regional Board will revise and modify this Order in accordance with the more stringent standards.

6. The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement.

7. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property of another, including property damage caused as a result of the migration of groundwater contaminant plumes, nor protect the discharger from liabilities under federal, state, or local laws, nor create a vested right for the discharger to continue the waste discharge.

8. The discharger shall allow the Regional Board, or an authorized representative or any representative of the U.S. EPA upon the presentation of credentials and other documents as may be required by law, to:

   a. Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;

   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

   c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operation regulated or require under this Order; and

   d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the Clean Water Act or California Water Code, any substances or parameters at any location.

9. The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.

10. Bypass of Treatment Facilities

a. Definitions

(1) "Bypass" means the intentional diversion of waste streams from any portion of the treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass Not Exceeding Effluent Limitations

The discharger may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operations. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.

c. Notice of Anticipated Bypass and Unanticipated Bypass

(1) Anticipated bypass. If the discharger knows in advance of the need for a bypass, they shall submit prior notice, if possible, at least ten days before the date of the bypass.

(2) Unanticipated bypass. The discharger shall submit notice of an unanticipated bypass as described under Reporting Requirement E.7.

d. Prohibition of Bypass

(1) Bypass is prohibited and the Regional Board may take enforcement action against the discharger for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the discharger could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(c) The discharger submitted notices as required under paragraph 13.c of this section.

(2) The Regional Board may approve an anticipated bypass, after considering its adverse effect, if the Regional Board determines that it will meet the three conditions listed above in paragraph d.(1) of this section.

11. Upset Conditions

a. Definitions

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an Upset

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph 14.c. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions Necessary for a Demonstration of Upset

A discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operations logs, or other relevant evidence that:

(1) An upset occurred and that discharger can identify the specific cause(s) of the upset;

(2) The permitted facility was at the time being properly operated; and

(3) The discharger submitted notice of the upset as required in Reporting Requirement E.7.

d. Burden of Proof

In any enforcement proceeding the discharger seeking to establish the occurrence of an upset has the burden of proof.

12. In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the discharger shall, to the extent necessary to maintain compliance with this Order, control production, all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced or is lost.

13. It shall not be a defense for the discharger in an enforcement action that effluent limitation violations are a result of analytical variability rendering the results inaccurate. The validity of the testing results, whether or not the discharger has monitored or sampled more frequently than required by this Order, shall not be a defense to an enforcement action.

14. A copy of this Order shall be posted at a prominent location at or near the discharger's facility, and shall be available to operating personnel at all times.

15. The provisions of this Order are severable. If any provision of this Order, or the application of any provision of this Order to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

16. The discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order, which has a reasonable likelihood of adversely affecting human health or the environment.

17. The discharger shall comply with any interim effluent limitations as established by addendum, enforcement action, or revised waste discharge requirements which have been or may be adopted by this Regional Board.

18. The discharger shall comply with all items of the "Standard Provisions" that are part of this Order (Attachment C).

19. The 6-month median effluent concentration limit shall apply as a moving median of daily values for any 180-day period in which daily values represent flow-weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred.

20. The Average Monthly Effluent Limitation (AMEL) shall be the highest allowable average of daily pollutant discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of measurements.

21. The daily maximum effluent concentration limitation shall apply to grab samples if the duration of the discharge is less than 24 hours.

22. The instantaneous maximum effluent concentration limit shall apply to grab sample determinations.

23. If only one sample is collected during the time period associated with the effluent limitations (e.g., AMEL or 6-month median), the single measurement shall be used to determine compliance with the effluent limitation for the AMEL.

24. All analytical data shall be reported uncensored with detection limits and quantitation limits identified. For any effluent limitation, compliance shall be determined using appropriate statistical methods to evaluate multiple samples. Sufficient sampling and analysis shall be conducted to determine compliance.

25. The discharger shall consistently use the lowest possible detection limits commercially available to analyze all required chemical parameters in its waste discharges.

26. Pursuant to the Implementation Policy, Reporting Requirements 2.4, the discharger shall report with each sample result subject to the CTR Requirements:

    a. The applicable Minimum Level (ML) in accordance with section 2.4.2, or established in accordance with section 2.4.3; this ML is the "reported ML"; and

    b. The laboratory's current Method Detection Limit (MDL), as determined by the procedure found in 40 CFR 136.

27. Pursuant to the Implementation Policy, Reporting Requirements 2.4.4, the discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample subject to CTR requirements using the following reporting protocols:

    a. Sample results greater than or equal to the reported Minimum Level (ML) shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

    b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The *estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words, "Estimated Concentration" (may be shortened to ("Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+/- a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

28. Compliance based on a single sample analysis should be determined where appropriate as described below for samples not subject to CTR requirements.

a. When a calculated effluent limitation is greater than or equal to the PQL (defined below), compliance shall be determined based on the calculated effluent limitation and either single or multiple sample analyses.

b. When the calculated effluent limitation is below the PQL, compliance determinations based on analysis of a single sample shall only be undertaken if the concentration of the constituent of concern in the sample is greater than or equal to the PQL.

c. When the calculated effluent limitation is below the PQL and recurrent analytical responses between the PQL and the calculated limit occur, compliance shall be determined by statistical analysis of multiple samples.

29. Published values for MDLs (defined below) and PQLs should be used for samples not subject to CTR Requirements, except where revised MDLs and PQLs are available from recent laboratory performance evaluations, in which case the revised MDLs and PQLs should be used. Where published values are not available, the Regional Board will determine appropriate values based on available information, including information submitted by the discharger upon request of the Regional Board.

a. The Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero, as defined in 40 CFR Part 136 Appendix B.

b. The Practical Quantitation Level (PQL) is the lowest concentration of a substance which can be consistently determined within +/- 20% of the true concentration by 75% of the labs tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL for carcinogens is the MDL x 5, and for non-carcinogens is the MDL x 10.

30. When determining compliance based on a single sample, with a single effluent limitation which applies to a group of chemicals (e.g. PCBs) concentrations of individual members of the group may be considered to be zero if the analytical response for individual chemicals falls below the MDL for that parameter.

31. The mass emission rate (MER), in pounds per day, shall be obtained from the following calculation for any calendar day:

mass emission rate (lb/day) = 8.34 x Q x C

in which Q and C are the flow rate in MGD and the constituent concentration in mg/L, respectively, and 8.34 is a conversion factor. If a composite sample is taken, then C is the constituent concentration measured in the composite sample and Q is the average flow rate occurring during the period over which the samples are composited. Mass loading effluent limitations for a specific pollutant may be calculated using the permitted flowrate (in MGD) as the flow rate "Q" and the pollutant concentration limitation contained in Discharge Specification No. B.1 as the constituent concentration "C" in the above equation.

32. Compliance with the Chronic Toxicity effluent limitation established in Discharge Specification B.1 of this Order shall be determined using critical life stage toxicity tests. Chronic Toxicity (TUc) shall be expressed as Toxic Units Chronic (TUc), where:

$$TUc = \frac{100}{NOEL}$$

where NOEL is the No Observed Effect Level and is expressed as the maximum percent of effluent that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed below.

A minimum of three test species with approved test protocols shall be used to measure compliance with the chronic toxicity objective. The test species shall include a fish, an invertebrate, and an aquatic plant. Acceptable test species are Fish = topsmelt, Invertebrate = echinoderm; Plant = kelp. After a screening period, monitoring may be reduced to the most sensitive species. Dilution and control water should be obtained from an unaffected area of the receiving waters. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay test and reported with the test results.

The tests specified in the 2001 Ocean Plan shall be used to measure TUc. Other tests may be added to the list when approved by the SWRCB.

33. The discharger shall conduct a Toxicity Reduction Evaluation (TRE) which includes all reasonable steps to identify the source of toxicity. Once the source of toxicity is identified, the

discharger shall take all reasonable steps to reduce the toxicity to meet the toxicity limitations identified in Discharge Specification B.1 of this Order.

The discharger shall develop a TRE workplan, in accordance with U.S. EPA's Toxicity Reduction Evaluation Procedures: Phases 1, 2, and 3, (U.S. EPA document Nos. U.S. EPA 600/3-88/034, 600/3-88/035 and 600/3-88/036, respectively), and TRE Protocol for Municipal Wastewater Treatment Plants (U.S. EPA 600/2-88/062). The TRE workplan shall be submitted within 30 days of the adoption of this Order. The TRE workplan shall be subject to the approval of the Regional Board and shall be modified as directed by the Regional Board. The discharger shall submit the TRE workplan to the Regional Board upon completion of the TRE workplan. Submittal of the TRE workplan on a IBM formatted double sided high density 3.5" floppy disk in Word version 7.0 format is acceptable.

If toxicity testing results show a violation of any acute or chronic toxicity limitation identified in Discharge Specification B.1 of this Order, the discharger shall:

a. Take all reasonable measures necessary to immediately minimize toxicity; and

b. Increase the frequency of the toxicity test(s), which showed a violation to at least two times per month until the results of at least two consecutive toxicity tests do not show violations.

34. For all bacterial analyses, sample dilutions should be performed so the range of values extends from 2 to 16,000 MPN (most probable number). The detection methods used for each analysis shall be reported with the results of the analysis. Detection methods used for coliforms (total and fecal) shall be those presented in the most recent edition of *Standard Methods for the Examination of Water and Wastewater* or any improved method determined by the Regional Board (and approved by U.S. EPA) to be appropriate. Detection methods used for enterococcus shall be those presented in U.S. EPA publication U.S. EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure* or any improved method determined by the Regional Board to be appropriate.

35. The geometric mean used for determining compliance with bacterial standards is calculated with the following equation:

$$\text{Geometric Mean} = (C_1 \times C_2 \times \ldots \times C_n)^{1/n}$$

where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL) found on each day of sampling.

36. As used in this Order, waste includes the discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

37. Reduction of natural light may be determined by the Regional Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Regional Board.

38. The following sections of 40 CFR are incorporated into this permit by reference:

    a. 122.5 *Effect of a permit*

    b. 122.21 *Application for a permit*

    c. 122.22 *Signatories to permit applications and reports*

    d. 122.41 *Conditions applicable to all permits*

    e. 122.61 *Transfer of permits*

    f. 122.62 *Modification or revocation of permits*

    g. 122.63 *Minor modifications of permits*

    h. 122.64 *Termination of permits*

E. REPORTING REQUIREMENTS

1. The discharger shall file a new report of waste discharge not less than 180 days prior to the following:

    a. Addition of any waste or chemical constituent to the discharge or the addition of a new process or product resulting in a change in the character of the wastes.

    b. Significant change in disposal method (e.g., change in the method of treatment which would significantly alter the nature of the waste).

    c. Significant change in the location of the point of discharge and in disposal area (e.g., moving the discharge to a disposal area significantly removed from the original area, potentially causing different water quality or nuisance problems).

    d. Increase in flow beyond that specified in this Order.

    e. Other circumstances which result in a material change in character, amount, or location of the waste discharge.

    f. Any planned physical alterations or additions to the permitted discharge/facility.

2. The discharger shall give advance notice to the Regional Board of any planned changes in the regulated facility or activity which may result in noncompliance with the requirements of this Order.

3. The discharger must notify this Regional Board, in writing, at least 30 days in advance of any proposed transfer of this facility to a new discharger. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgment that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable after the transfer date.

4. The discharger shall report any noncompliance which may endanger health or the environment orally to this Regional Board within 24 hours from the time the discharger becomes aware of the circumstances. The discharger shall submit a written follow-up report containing: a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The written report shall be included with the monitoring report for the period in which the noncompliance occurred, or earlier if requested by the Regional Board. The following occurrence(s) must be reported to the Regional Board within 24 hours:

   a. Any upset which causes the effluent limitations of this Order to be exceeded.

   b. Any unanticipated bypass which causes the effluent limits of this Order to be exceeded.

   c. Any violation of any of the prohibitions of this Order.

5. The discharger shall notify the Regional Board as soon as it is known or there is reason to believe:

   a. That any activity has occurred or which will occur which would result in the discharge of any toxic pollutant which is not limited in this Order, if that discharge will exceed the highest of the following "notification levels":

      1. One hundred micrograms per liter (100 µg/L);

      2.

Constituent	Notification Level
Acrolein	200 µg/L
Acrylonitrile	200 µg/L
2,4-dinitrophenol	500 µg/L
2-methyl-4,6-dinitrophenol	500 µg/L
antimony	1 mg/L

6. The discharger shall furnish to the Regional Board, within a reasonable time, any information which the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order, or to determine compliance with this Order or other requirements established by the Regional Board. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

7. The discharger shall provide adequate notice to the Regional Board of the following:

   a. Any new introduction of pollutants to the discharge.

   b. Any substantial change in the volume or character of pollutants being introduced into the discharge.

   c. For the purpose of this provision, adequate notice shall include information on

      (1) The quality and quantity of waste introduced into the discharge,

      (2) Relocation of the point of discharge or change in the storm drain or conveyance system used to discharge to San Diego Bay, and

      (3) Any anticipated impact of the change on the quantity or quality of effluent to be discharged to San Diego Bay.

8. Where the discharger becomes aware that it failed to submit any relevant facts in a report of waste discharge, or submitted incorrect information in a report of waste discharge, or in any report to the Regional Board, it shall promptly notify the Regional Board of the failure and submit corrected facts or information.

9. If a need for a discharge bypass is known in advance, the discharger shall submit prior notice and, if at all possible, such notice shall be submitted at least ten days prior to the date of the bypass.

10. All applications, reports, or information submitted to the Regional Board shall be signed and certified as follows:

    a. All Reports of Waste Discharge shall be signed as follows:

       By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

b. All other reports required by this Order and other information requested by the Regional Board shall be signed by a person designated in paragraph (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:

1. The authorization is made in writing by a person described in paragraph (a) of this provision;

2. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, or position of equivalent responsibility (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and

3. The written authorization is submitted to the Regional Board.

c. Any person signing a document under this Section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. Except for data determined to be confidential under Title 40, Code of Federal Regulations Part 2 (40 CFR Part 2), all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the California Regional Water Quality Control Board, San Diego Region. As required by the Clean Water Act, Reports of Waste Discharge, this Order, and effluent monitoring data shall not be considered confidential.

12. The discharger shall submit written notification of the termination of the discharge to the Regional Board within 30 days of termination of the discharge.

13. The discharger shall submit reports and provide notifications as required by this Order in accordance with the following:

a. Reports required to be submitted to this Regional Board shall be sent to:

Industrial Compliance Unit
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123-4340

Notifications required to be provided to this Regional Board shall be made to:

Telephone - (858) 467-2952 or
Facsimile - (858) 571-6972

b. Reports required to be submitted to the U.S. EPA shall be sent to:

U.S. Environmental Protection Agency
Region IX
WTR-7 (DMR)
75 Hawthorne Street
San Francisco, California 94105

F. NOTIFICATIONS

1. California Water Code Section 13263(g) states:

"No discharge of waste into the waters of the state, whether or not such discharge is made pursuant to waste discharge requirements, shall create a vested right to continue such discharge. All discharges of waste into waters of the state are privileges, not rights."

2. The Clean Water Act provides that any person who violates a condition of this Order implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a civil penalty not to exceed $25,000 per day of such violations. Any person who willfully or negligently violates conditions of this Order implementing Section 301, 302, 306, 307 or 308 of the Clean Water Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both.

3. The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

4. Nothing in this Order shall be construed to relieve the discharger from civil or criminal penalties for noncompliance.

5. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the discharger from any responsibilities, liabilities, or penalties to which the discharger is or maybe subject to under Section 311 of the Clean Water Act.

6. Nothing in this Order shall be construed to preclude institution of any legal action or relieve the discharger from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

7. If *The Water Quality Control Policy for Enclosed Bays and Estuaries of California* is revised, this Order may be modified to incorporate such revisions.

8. This Order expires on March 12, 2008. However, it will continue in force and effect until a new permit is issued or the Regional Board rescinds this permit.

9. This Order shall become effective 10 days after the date of its adoption, provided the Regional Administrator or Director, United States Environmental Protection Agency, has no objection. If the Regional Administrator or Director objects to its issuance, this Order shall not become effective until such objection is withdrawn.

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on March 12, 2003.

JOHN H. ROBERTUS
Executive Officer
March 12, 2003

ENDNOTES

1. Where effluent concentration limitations in this Order are less than Method Detection Limits (MDL) contained in 40 CFR 136, or other analytical detection levels approved by the Regional Board, compliance with effluent limitations will be assumed if the effluent concentration is less than the MDL or practical quantitation levels contained in the approved analytical methods unless more definitive (sensitive) analytical methods are requested by the Regional Board. If sample matrix interferences, or other interferences, result in analytical detection levels less sensitive than those listed in 40 CFR 136, or other methods approved by the Regional Board, such interferences shall be documented by the laboratory performing the analyses.

2. The "Basis" for each numerical effluent pollutant concentration limit necessary to protect the beneficial uses of San Diego Bay waters was derived or obtained as indicated in the Discharge Specification B.1.

3. "CTR" - On April 28 2000, the U.S. EPA promulgated the California Toxics Rule (CTR), numeric water quality criteria for priority toxic pollutants and other water quality standards provisions to be applied to waters in the State of California. U.S. EPA promulgated this rule based on the administrator's determination that the numeric criteria are necessary in the State of California to protect human health and the environment. U.S. EPA promulgated this rule to fill a gap in California water quality standards that was created in 1994 when a State court overturned the State's water quality control plans containing water quality criteria for priority toxic pollutants. Thus, the State of California has been without numeric water quality criteria for many priority toxic pollutants as required by the Clean Water Act, necessitating this action by U.S. EPA. These Federal criteria are legally applicable in the State of California for inland surface waters, enclosed bays and estuaries for all purposes and programs under the Clean Water Act.

4. "OP" - The effluent limitations for Ocean Plan Table B constituents for groundwater extraction waste discharges were determined by using an initial dilution factor of zero and applying the calculations and procedures found in the Water Quality Control Plan, Ocean Waters of California, 2001. The effluent limitations for volatile organics (e.g., benzene, ethylbenzene, toluene, and xylene, etc.) are based on best professional judgement of the best available technology economically achievable (BAT) for the removal of volatile organic compounds from water (reference is made to NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document (Draft), U.S. Environmental Protection Agency, Water Management Division, July 1986), and the practical quantitation level for each compound. Effluent limitations for settleable solids, total suspended solids, toxicity, hydrogen sulfide, and total petroleum hydrocarbons are based on best professional judgement.

5. "BPJ" = Best Professional Judgement. The application of best professional judgement in establishing effluent limitations is authorized by 40 CFR125.3. The establishment of BPJ effluent limitations is based on:

   a. Review of effluent limitations for similar operations which discharge wastes to enclosed bays or other receiving waters in the State of California,

   b. Compliance with general narrative water quality objectives as required in the *Comprehensive Water Quality Control Plan Report, San Diego Basin (9)* (Basin Plan),

   c. Review of technical support documents Quality Criteria for Water, United States Environmental Protection Agency, if available, for suggested criteria for the protection of aquatic life,

   d. *Water Quality Control Plan, Ocean Waters of California, 2001*, and,

   e. *Water Quality Control Policy for Enclosed Bays and Estuaries of California*, 1974.

6. "BPJ/BAT"= The best professional judgement of the best available technology economically achievable. The effluent limitations for volatile and semivolatile organic compounds are based on BPJ/BAT for the removal of organic constituents as authorized by Section 301 (b)(2) of the Clean Water Act. The establishment of the BPJ/BAT effluent limitations is based on:

a. economically achievable pollutant removal efficiencies of available treatment technologies,

b. method detection limits (MDL) or practical quantitation levels (PQL) established for organic contaminants in waters,

c. the draft document *NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document* for volatile petroleum hydrocarbons, prepared by Harold A. Ball and Kenneth H. Sutherland, United States Environmental Protection Agency, Water Management Division, July 1986,

d. *Leaking Underground Storage Tank Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure,* State of California, Leaking Underground Fuel Tank Task Force, May 1988,

e. *Final NPDES General Permit for Petroleum Fuel Contaminated Ground/Storm Waters in the State of Florida,* Federal Register, July 17, 1989, and,

f. *Model NPDES Permit for Discharges Resulting From the Cleanup of Gasoline Released From Underground Storage Tanks,* U.S. Environmental Protection Agency, June 1989.

7. "EBE"= Water Quality Control Policy for Enclosed Bays and Estuaries of California, 1974.

8. "BP" = Comprehensive Water Quality Control Plan Report, San Diego Basin (9).

9. The hexavalent chromium limit may be met as a total chromium limit. If analytical results for total chromium reveal a total chromium concentration greater than the effluent limitations for hexavalent chromium and the sample has not been analyzed for hexavalent chromium, it will be assumed that hexavalent chromium concentrations are in violation of the effluent limitation.

10. "Base/neutral organic compounds" are listed in 40CFR 136. The instantaneous maximum effluent limitation of 10 µg/L for base/neutral compounds does not apply to pesticides.

11. Degradation shall be determined by comparison of the waste field and reference site(s) for characteristics such as species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected or are not the only ones affected.

12. Significant difference is defined as statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

13. Compliance with the water quality objectives shall be determined from samples collected at stations representative of the area within the waste field where initial dilution is completed. Since the effluent limitations in this Order are based on an initial dilution factor of zero, compliance with the water quality objectives shall be achieved at all locations in the receiving water.

14. Shellfish are organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e. mussels, clams and oysters).